

CHAPTER 93. INSPECT A REPAIR STATION'S MAINTENANCE PROCESS

SECTION 1. BACKGROUND

1. PROGRAM TRACKING AND REPORTING SUBSYSTEM (PTRS) ACTIVITY CODES.

A. Maintenance: 3654 (New)

B. Avionics: 5654 (New)

3. OBJECTIVE. This section provides guidance for conducting a detailed process/task inspection by analyzing

the data, materials, and parts used in the aircraft maintenance and alterations process.

5. GENERAL. A detailed process/task inspection is a surveillance activity that will examine one or more specific tasks that are associated with the maintenance and alteration of an airframe, aircraft engine, propeller, appliances, and/or component parts.

[THIS PAGE INTENTIONALLY LEFT BLANK]

SECTION 2. PROCEDURES

1. PREREQUISITES AND COORDINATION REQUIREMENTS.

A. Prerequisites:

- Knowledge of the regulatory requirements of 14 CFR parts 43 and 145
- Successful completion of the Airworthiness Inspector Indoctrination course(s) or equivalent
- Previous experience with certification or surveillance of 14 CFR part 145 repair stations

B. Coordination.

3. REFERENCES, FORMS, AND JOB AIDS.

A. References (current editions):

- 14 CFR parts 43 and 145
- Order 8300.10, Airworthiness Inspector's Handbook, vol. 2, ch. 161, Introduction to Part 145 Repair Stations
- 8300.10, Vol. 2, Ch. 162, Procedures for Certifying Part 145 Repair Stations/Satellites Located within the United States and its Territories
- 8300.10, Vol. 3, Ch. 8, Conduct a Detailed Process/Task Inspection
- Advisory Circular (AC) 145-9, Guide For Developing and Evaluating Repair Station and Quality Control Manuals

A. Forms. None.

B. Job Aids. None.

5. PROCEDURES.

A. *Planning.* Prior to inspecting, the principal inspector (PI) should carefully review:

- (1) Parts 43 and 145.

(2) Repair Station Manual/Quality Control Manual (RSM/QCM).

(3) Operations specifications.

(4) The Safety Performance Analysis System (SPAS) is the organization's primary source of comprehensive, integrated safety information that is used by inspectors, analysts, and managers in developing and adjusting field surveillance, investigation, and other oversight programs. SPAS interfaces with key fielded oversight programs (such as ATOS, SEP, and the NPG), as well as other government and industry sources, collecting raw performance and operational data, analyzing and summarizing the data, and providing critical information in the form of graphs, tables, and reports. These SPAS outputs are then used to (1) identify safety hazard and risk areas; (2) target inspection efforts for repair stations, and to areas of greatest risk; and (3) monitor the effectiveness of targeted oversight actions. SPAS repair station profile and repair station analytical model (RSAM) are available for use. This data provides additional information on performance and risk associated with individual repair station facilities.

(5) Vital Information Subsystem (VIS).

(6) Certificate-holding district office (CHDO) file.

(7) The PI should identify the process/task to be inspected, identify those documents (travelers, task cards, work orders, maintenance/component maintenance manuals, etc.) that will verify the use of approved or accepted data, materials, tools, etc.

(8) Inform the appropriate management personnel as to what particular process/task will be observed during the inspection. Inform the person in authority of the inspection criteria and the areas that will be verified.

NOTE: During this inspection, pay particular attention to any deviations from approved data or procedures.

B. *Process Review.* The following steps serve as a guide to the PI in performing a process/task inspection. Certain steps may not be appropriate, depending on the

complexity of the repair station. Inspect/review the following, as applicable:

(1) *Verify Work Instructions.*

(a) Have been prepared for all processes.

(b) Reflect the technical data contained in appropriate maintenance manuals or other approved documents.

(c) Define accept/reject criteria, required tools, test equipment, inspection equipment, details of method of inspection to be performed, and tolerance limits, as applicable.

(d) Denote and detail the function to be performed, sequence of operations, and inspection points to ensure proper handling of products from one station to another through all phases.

(e) Revisions have been approved, controlled, and documented.

(f) Traceability is maintained for the completion of all operations.

(2) *Inspection instructions.*

(a) Inspection records, indicating the number of inspections made, conformance or nonconformance, and the action when the product is nonconforming, are maintained.

(b) When required, reinspection/retests are performed following rework.

(c) Assemblies are inspected for conformity before closure.

(d) All required inspections and tests have been satisfactorily accomplished prior to final acceptance of the completed products/parts.

(e) Personnel performing required inspection items inspections for an air carrier are identified and authorized by the carrier.

(f) Inspection personnel are not exceeding their area of authority.

(g) Internal audits are conducted to verify compliance with FAA-approved or acceptable data, and appropriate procedures.

(3) *Data.*

(a) Personnel are provided with current technical data and changes.

(b) Inapplicable, inappropriate, illegible, or obsolete data is removed from areas of potential use.

(c) Nondestructive inspection (NDI) processes are reviewed for conformance with FAA-approved data.

(d) Process specification changes are submitted to the FAA for evaluation and approval.

(e) Tags, forms, and other documents used are controlled.

(4) *Major Repairs and Alterations.*

(a) If the task involved is a major repair or major alteration, that FAA-approved data was used to accomplish the task.

(b) Authorized individuals referenced in the operator's Special Federal Aviation Regulation (SFAR) 36 procedures manual have approved SFAR 36 data used for major repairs.

(c) The scope of the SFAR 36 authority has not been exceeded.

(d) The Designated Engineering Representative (DER)-approved data has been documented on FAA Form 8110-3 Statement of Compliance with the Federal Aviation Administration and the revision level is correct.

(e) The DER is authorized by the residing Aircraft Certification Office to approve the data.

NOTE: Any FAA-approved data procured by the repair station for use on 14 CFR parts 121, 125, 129, and 135 aircraft must be in accordance with the air carrier's manual.

(5) *Materials/Parts.*

(a) The materials, test records, and standards used in NDI are identified and controlled.

(b) When required, special identification and controls for materials or parts are identified and are in place prior to the materials/parts being used.

(c) When required, special handling and storage requirements for materials and parts are identified and being used.

(d) There is traceability of material or parts received from distributors and that the records of receiving inspection data are retained and list the name, part number, quantity, and inspection results.

(6) *Tools and Test Equipment.*

(a) When required, special tools and test equipment are identified and used for an operation or process.

(b) Calibration records are maintained for all tools and test equipment requiring calibration.

(c) The facility's personnel are trained appropriately for their assignments.

(7) *Additional Considerations.*

(a) Shift turnover procedures are in place and are being complied with.

(b) Adequate numbers of personnel trained, qualified, and authorized to perform the specific task, are available throughout the maintenance process.

(c) As work is routed through the facility, that it flows through the process with no interruptions due to personnel, facilities, or parts/materials availability that might affect airworthiness.

C. *Analyze Findings.* Upon completion of the inspection, record all deficiencies and determine the appropriate corrective action(s).

D. *Conduct Debriefing.* Brief the certificate holder on the inspection results. Discuss any deficiencies and possible corrective action.

7. TASK OUTCOMES.

A. *Complete PTRS.*

B. *Complete the Task.* Completion of this task may result in the following:

- Send a letter to the operator documenting all deficiencies
- Initiate and Enforcement Investigation Report if necessary

C. *Document Task.* File all supporting paperwork in the file. Update the VIS as required.

9. **FUTURE ACTIVITIES.** Schedule and conduct followup inspections as applicable.